

CLAIM OR CLAIMS

WHAT IS CLAIMED IS:

Sub
C1
5 1. A method of performing semi-automatic tracking of colored objects within a video image sequence comprising the steps of:

separating objects within an initial frame of the video image sequence on the basis of color;

identifying from the separated objects an object of interest having a centroid; and

10 tracking the object of interest through successive frames of the video image sequence using a Kalman predictive algorithm applied to the centroid.

15 2. The method as recited in claim 1 wherein the tracking step comprises the steps of:

from the initial frame determining a position and velocity for the centroid;

for each successive frame predicting a position of the centroid;

20 from the predicted position extracting a connected group of blocks that belong to the object of interest;

measuring the position of the centroid in the successive frame from the connected group of blocks; and

smoothing the measured position and velocity of the centroid.

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3. The method as recited in claim 1 further comprising the steps of:

detecting whether the centroid in the successive frame is within the
object of interest and field of view; and

applying an error recovery scheme to re-identify the object of

5 interest in the successive frame.

Added A. }

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